

Project Goals

Remove oil production facilities and cleanup associated contaminants.

Protect and enhance marine habitat for coastal and estuarine fisheries resources.

Increase and enhance habitat for migratory waterfowl, seabirds, and shorebirds.

Provide habitat for endangered species including the light-footed clapper rail, western snowy plover, Belding's savannah sparrow, and California least tern.

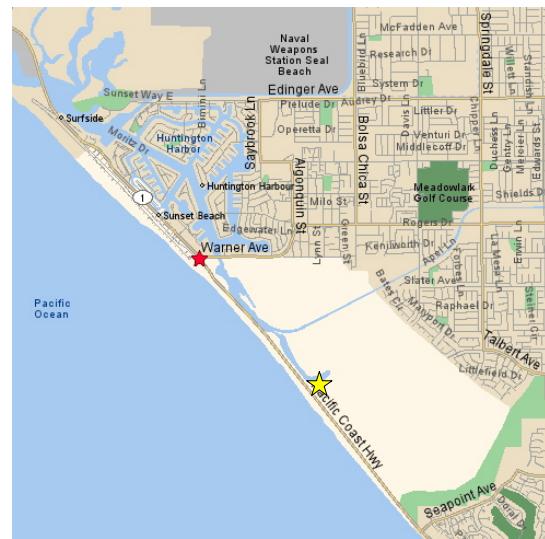
Incorporate passive and non-intrusive human activity, including public education after construction.

Funding Arrangements

INCOME - In return for mitigation credits applicable to harbor landfill construction, the Ports of Los Angeles and Long Beach provided \$79 million. An additional \$30 million comes from voter-approved State bond acts. Agency contributions and earned interest added another \$12 million.

EXPENSES – Purchase of the property required \$25 million. Engineering, contaminants sampling, environmental documentation, and oversight spent \$15 million. Oil field buyout, removal, and modification spent about \$10 million. The construction contracts total \$68 million. About \$6.5 million plus interest has been set aside for maintenance and future restoration. The long-term land manager will be determined by the end of construction.

Public Access Restrictions



Public access must be curtailed in the restoration project construction area and within the part of the oil field that will continue to operate. The interpretive building operated by the Bolsa Chica Conservancy at Warner and PCH (★) will continue to operate. The DFG parking and boardwalk on PCH will be open, although repairs to both are scheduled in early 2005 (★). Jetty and inlet construction will require limited public closure of facilities at the south end of Bolsa Chica State Beach.

Project information/contact:
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Fish and Wildlife Service Project Manager
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Bolsa Chica summer view of oil field

Bolsa Chica Wetlands Restoration Project Information

December 2004



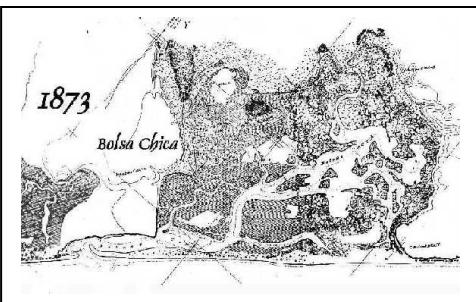
*Bolsa Chica Restored
Artist Conception of Low Tide*



**Huntington Beach
Orange County
California**



Project History



Historically, thousands of acres of highly productive saltwater and freshwater marshes extended from Anaheim Bay to the Huntington Beach bluffs, including the area known as Bolsa Chica. In 1899, Bolsa Chica was diked to create the Bolsa Chica Gun Club, and later diked further and drained for oil extraction that began in the 1940's. Since then, much of the adjacent wetland and aquatic areas have been drained or filled for development. In the early 1970's, the remaining wetlands at Bolsa Chica were proposed for large-scale residential and commercial developments, but these efforts over the next two decades were not successful. In 1997, under a State-Federal interagency agreement, most of the remaining lowland portions of Bolsa Chica were purchased by the State of California using mitigation funds from the Ports of Los Angeles and Long Beach for the purpose of wetland restoration. Construction has begun on the adopted restoration plan.

Construction Event Schedule*

Winter 2004 – Aera Energy, the oil field operator has completed the removal of oil wells and pipelines from the tidal basin. Construction contractor, Kiewit Pacific Company, and Construction Manager, Moffatt and Nichol Engineers, under direction of the Fish and Wildlife Service, mobilize personnel and construction equipment. Public access in construction areas is closed and clearing of vegetation in grading and excavation areas is completed. Dewatering and excavation of silts, clays, and slightly contaminated soil are begun. Building of bridge approaches and PCH detour, levees, and nest sites also begin.

Spring 2005 – Nest sites and some levee sections are completed. Bridge abutments are partially built and pile driving starts. Dewatering and soil excavation continues in the full tidal basin with land-based equipment.

Summer 2005 - Levees are completed. Peripheral trails are reopened. Culverts are installed in levee to connect muted tidal area. Rock hauling to beach, jetty and bank protection work begins.

Fall 2005 – Both bridges are completed and PCH detour removed. Groundwater barrier is completed. Dewatering ceases. Dredge is brought into full tidal basin, water level is controlled to operate dredge. About 1.7 million cubic yards of sand are pumped to the ebb shoal location at the south end of Bolsa Chica State Beach.

Winter 2005 – Dredging in tidal basin and ebb shoal construction continue. Pocket culvert connection to Outer Bolsa is completed and muted tides flow in the Pocket north of the flood channel. State Beach fence, parking lot, and exit road are completed.

Spring 2006 - Jetties are completed. Inlet sand plug is removed, sand placed on beach, allowing daily ocean tides to ebb and flood over full tidal basin and muted tidal areas.

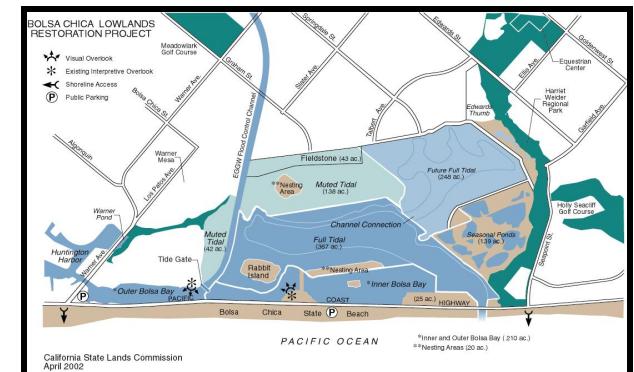
Summer 2006 - Contractors demobilize and the Restoration Project is deemed complete.

* Some construction events have timing constraints, while others may be allowed considerable leeway in implementation



Project Description

Nearly 600 acres of marine and wetland habitat at Bolsa Chica are being recreated or rehabilitated. Major components include: 1) Removal and clean-up of oil extraction facilities from part of the wetlands area. 2) Restoration of full tidal influence through a new inlet, bridge construction and excavation of a tidal basin. 3) Creation and enhancement of aquatic habitats and intertidal wetlands. 4) Creation of nesting and feeding areas for threatened and endangered birds. 5) Preservation of non-tidal wetlands. The restoration will be the largest in Southern California history.



BOLSA CHICA WETLANDS STEERING COMMITTEE

California State Lands Commission * United States Environmental Protection Agency * California Department of Fish & Game * United States Fish and Wildlife Service
California Coastal Conservancy * National Marine Fisheries Service * California Resources Agency * United States Army Corps of Engineers

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